

REMARKS/ARGUMENTS

In the Final Office Action mailed December 3, 2007, the Examiner rejected claims 109, 292 and 293 under 35 U.S.C. 102(a) over U.S. Patent No. 5,856,174 to *Lipshutz*. This rejection is respectfully traversed in view of the Amendment to the claims, which specifies that the flow channel and deflectable membrane are formed from a single piece of elastomeric material. Support for the Amendment can be found in Fig. 1, and the accompanying description in the Specification, which shows a single layer formed with a flow channel recess and deflectable membrane by micromachined mold 10. No new matter is believed to be introduced by the Amendment and claims 109, 292, and 293 remain pending in the Application.

The previous Response of September 28, 2007 included an extensive explanation why *Lipshutz* neither described nor suggested that a fluid channel and deflectable diaphragm valve were formed integral in a single elastomeric layer. The Office doesn't appear to dispute the characterization of *Lipshutz* as describing a flow channel and deflectable membrane formed in different layers, but believes this still describes a deflectable membrane formed integral with the first layer:

In response, the examiner notes that applicant's specification is quite clear on the point that *an integral member may result from bonding one layer to another*. . . . With this perspective, the examiner considers *Lipshutz* to teach a structure wherein deflectable membrane 114 is formed integral with the first elastomeric layer 106. *See* Office Action, p. 5 (emphasis added).

The amended claims clarify that the methods of microfabricating an elastomeric structure include a step of forming the flow channel and the deflectable membrane from a single piece of elastomeric material. Making the layer from a single piece of material uses a different fabrication method then making it from two or more separate pieces, even if the resulting structure is identical. *Lipshutz* shows a structure with a flow channel and deflectable membrane formed in different layers (*see, e.g., Lipshutz*, col. 16, ll. 46-48). Because they are formed in different layers, there is nothing in the reference that describes or suggests a step of making the flow channel and deflectable membrane from a single piece of elastomeric material. Thus, the methods described in amended claims 109, 292, and 293 include a step of making an elastomeric

layer that is not present in *Lipshutz*, even if the reference shows a deflectable membrane 114 formed integral with the first elastomeric layer 106. For at least this reason, the claims are allowable over *Lipshutz*, and withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

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